### § 1045.225 How do I amend my application for certification to include new or modified engines or change an FEL?

Before we issue you a certificate of conformity, you may amend your application to include new or modified engine configurations, subject to the provisions of this section. After we have issued your certificate of conformity, you may send us an amended application requesting that we include new or modified engine configurations within the scope of the certificate, subject to the provisions of this section. You must amend your application if any changes occur with respect to any information included in your application.

(a) You must amend your application before you take any of the following actions:

(1) Add an engine configuration to an engine family. In this case, the engine configuration added must be consistent with other engine configurations in the engine family with respect to the criteria listed in §1045.230.

(2) Change an engine configuration already included in an engine family in a way that may affect emissions, or change any of the components you described in your application for certification. This includes production and design changes that may affect emissions any time during the engine's lifetime.

(3) Modify an FEL for an engine family as described in paragraph (f) of this section.

(b) To amend your application for certification, send the Designated Compliance Officer the following information:

(1) Describe in detail the addition or change in the engine model or configuration you intend to make.

(2) Include engineering evaluations or data showing that the amended engine family complies with all applicable requirements. You may do this by showing that the original emission-data engine is still appropriate for showing that the amended family complies with all applicable requirements.

(3) If the original emission-data engine for the engine family is not appropriate to show compliance for the new or modified engine configuration, include new test data showing that the new or modified engine configuration meets the requirements of this part.

(c) We may ask for more test data or engineering evaluations. You must give us these within 30 days after we request them.

(d) For engine families already covered by a certificate of conformity, we will determine whether the existing certificate of conformity covers your newly added or modified engine. You may ask for a hearing if we deny your request (see §1045.820).

(e) For engine families already covered by a certificate of conformity, you may start producing the new or modified engine configuration anytime after you send us your amended application and before we make a decision under paragraph (d) of this section. However, if we determine that the affected engines do not meet applicable requirements, we will notify you to cease production of the engines and may require you to recall the engines at no expense to the owner. Choosing to produce engines under this paragraph (e) is deemed to be consent to recall all engines that we determine do not meet applicable emission standards or other requirements and to remedy the nonconformity at no expense to the owner. If you do not provide information required under paragraph (c) of this section within 30 days after we request it, you must stop producing the new or modified engines.

(f) You may ask us to approve a change to your FEL in certain cases after the start of production. The changed FEL may not apply to engines you have already introduced into U.S. commerce, except as described in this paragraph (f). If we approve a changed FEL after the start of production, you must include the new FEL on the emission control information label for all engines produced after the change. You may ask us to approve a change to your FEL in the following cases:

(1) You may ask to raise your FEL for your engine family at any time. In your request, you must show that you will still be able to meet the emission standards as specified in subparts B and H of this part. If you amend your application by submitting new test

data to include a newly added or modified engine, as described in paragraph (b)(3) of this section, use the appropriate FELs with corresponding production volumes to calculate emission credits for the model year, as described in subpart H of this part. In all other circumstances, you must use the higher FEL for the entire family to calculate emission credits under subpart H of this part.

(2) You may ask to lower the FEL for your engine family only if you have test data from production engines showing that emissions are below the proposed lower FEL. The lower FEL applies only to engines you produce after we approve the new FEL. Use the appropriate FELs with corresponding production volumes to calculate emission credits for the model year, as described in subpart H of this part.

### § 1045.230 How do I select engine families?

(a) For purposes of certification, divide your product line into families of engines that are expected to have similar emission characteristics throughout their useful life as described in this section. Your engine family is limited to a single model year.

(b) Group engines into the same engine family if they are the same in all the following aspects:

(1) The combustion cycle and fuel. See paragraph (e) of this section for special provisions that apply for dual-fuel engines.

(2) Method of air aspiration (for example, turbocharged vs. naturally aspirated).

(3) The number, location, volume, and composition of catalytic converters.

(4) The number, arrangement (such as in-line or vee configuration), and approximate bore diameter of cylinders.

(5) Method of control for engine operation, other than governing (i.e., mechanical or electronic).

(6) The numerical level of the applicable emission standards. For example, an engine family may not include engines certified to different family emission limits, though you may change family emission limits without recertifying as specified in § 1045.225.

(c) You may subdivide a group of engines that is identical under paragraph (b) of this section into different engine families if you show the expected emission characteristics are different during the useful life.

(d) You may group engines that are not identical with respect to the things listed in paragraph (b) of this section into the same engine family, as follows:

(1) In unusual circumstances, you may group such engines into the same engine family if you show that their emission characteristics during the useful life will be similar.

(2) If you are a small-volume engine manufacturer, you may group all your high-performance engines into a single engine family.

(3) The provisions of this paragraph (e) do not exempt any engines from meeting all the emission standards and requirements in subpart B of this part.

(e) You may certify dual-fuel or flexible-fuel engines in a single engine family. You may include dedicated-fuel versions of this same engine model in the same engine family, as long as they are identical to the engine configuration with respect to that fuel type for the dual-fuel or flexible-fuel version of the engine. For example, if you produce an engine that can alternately run on gasoline and natural gas, you can include the gasoline-only and natural gas-only versions of the engine in the same engine family as the dual-fuel engine if engine operation on each fuel type is identical with or without installation of components for operating on the other fuel.

[73 FR 59194, Oct. 8, 2008, as amended at 75 FR 23019, Apr. 30, 2010]

### § 1045.235 What emission testing must I perform for my application for a certificate of conformity?

This section describes the emission testing you must perform to show compliance with the emission standards in §§ 1045.103 and 1045.105. See § 1045.205(p) regarding emission testing related to the not-to-exceed standards. See §§ 1045.240 and 1045.245 and 40 CFR part 1065, subpart E, regarding service accumulation before emission testing.

(a) Select an emission-data engine from each engine family for testing as